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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,861	11/01/2000	James Russell Miller	BostonBrace/Belt	5592

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EXAMINER

POTHIER, DENISE M

ART UNIT PAPER NUMBER

3764

DATE MAILED: 03/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/705,861

Applicant(s)

MILLER, JAMES RUSSELL

Examiner

Denise M Pothier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-62 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 31-62 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Summary

In order to clarify the confusion and in an effort to promote prosecution, claims 31-62 are being entered into the present application. The restriction requirement is being withdrawn, and the following Office Action is being presented for Applicant's consideration.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 31-46 and 51-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claim 31, the phrase "of the type" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "the type"), thereby rendering the scope of the claim(s) unascertainable.

4. The recitation, "the locking elements include cooperating hook and loop fastening elements disposed in corresponding locations on the first and second ends" in claim 51 is indefinite since it depends from claim 49, which recites "the locking elements include cooperating buckle and buckle-receiving elements disposed in corresponding locations on the first and second ends." The specification does not disclose both these embodiments used together. In addition and consistent with claims 31-32 and 35, the

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limitation to hook and loop fasteners on the first and second ends does not depend from the limitation to a buckle and buckle-receiving elements. Clarification is needed.

As best understood and for purposes of examination an assumption that claim 51 depends from claim 48 and not 49 will be made.

5. The remaining claims are rejected because they depend from a rejected claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 31-32, 34, 47-48, 51, 59 and 61-62 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson (4,833,730). Nelson discloses in Figures 1-6 and column 1, lines 39-40 a body appliance having at least a first back element (includes 34) shaped to fit about a person's lower back (col. 5, l. 18-23) the brace comprising an iliac crest belt element (includes 12) attachable to the inner surface (see Figs. 3-6) of the first back element (34), the belt comprising an elongated strip (includes 12) having a center portion and at least first and second ends (around 18 and 19 in Fig. 3), the strip

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being sized and shaped so as to encircle the waist of the person (col. 2, l. 63-68) with adjustable circumference and tension (due to fasteners 20-21), with the center portion positioned substantially against the lumbar spinal region (see col. 2, l. 63-68) of the back of the person, the strip including at least a first portion (side of 12 indicated by arrow 10 in Figs. 1-2) sized and shaped to urge against the iliac crest of the person.

As for claims 32, 34, and 51, Nelson discloses hook and loop locking elements (includes 20,21; col. 3, l. 7-14) that adjust the fit of the belt about the waist of the person and lock the belt about the waist of the person.

As for claims 47-48, see the above discussion.

As for claim 59, Figure 6 and column 3, lines 24-26 of Nelson disclose the belt nonremovably fastened to the first back element.

As for claim 61, see Figure 6 of Nelson showing the belt integrally formed with the first back element. Note, The term "integral" does not require a one-piece, unitary structure. In re Kohno, 391 F.2d 959, 157 USPQ 275 (CCPA 1968); In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

As for claim 62, Nelson discloses in Figure 6 the belt interlocking with the first back element so as to impart additionally stabilizing forces (at its point of connection) to the back element.

8. Claims 31-34 and 47-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Morrow (6,165,147). Morrow discloses in Figures 1-2 and 4 a body appliance having at least a first back element (includes 20,34) shaped to fit about a person's lower back (col. 1, l. 51-56, col. 2, l. 67 and col. 3, l. 8-9) the brace comprising

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an iliac crest belt element (includes 12,14,24,28) attachable to the inner surface (see Fig. 2) of the first back element (34), the belt comprising an elongated strip (includes 12,14) having a center portion and at least first and second ends (around 12a,12b in Fig. 1), the strip being sized and shaped so as to encircle the waist of the person (col. 2, l. 67) with adjustable circumference and tension (due to fasteners 24,28), with the center portion positioned substantially against the lumbar spinal region (see col. 2, l. 67) of the back of the person, the strip including at least a first portion (col. 2, l. 67 states device used on hips which includes the iliac crest region) sized and shaped to urge against the iliac crest of the person.

As for claims 32-34, Morrow discloses locking elements (includes 24,28; col. 3, l. 14-25) that include a buckle (26) and hook and loop elements (24a,d) that adjust the fit of the belt about the waist of the person and lock the belt about the waist of the person. The buckle and hook and loop elements are buckle-receiving elements disposed in corresponding locations on the first and second ends.

As for claims 47-50, see the above discussions of claims 31-34.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 35-37, 41, 51-53 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrow in view of Richards (5,207,635). Morrow discloses in column 3, lines 15-25 the locking elements are a buckle on one end and hook and loop element on a second end. However, Morrow does not disclose hook and loop on a second end. Richards teaches in the title and in column 5, lines 66 through column 6, lines 8 that it is known in the lower back support art to substitute a buckle/hook and loop locking arrangement for a hook and loop locking arrangement in order have a fastener that permits precise incremental and continuous adjustments. As such, Richards provides a motivation to substitute the buckle and hook/loop arrangement disclosed by Morrow with a cooperating hook and loop fastening element, as taught by Richards, disposed in corresponding locations on the first and second ends so as to interlock. Thus, it would have been obvious to one of ordinary skill to make the above-described substitution in order to secure the belt of Morrow to the user.

As for claim 36-37, see column 3, lines 1 of Morrow discloses the strip being made from a rigid plastic.

As for claim 41, see Figure 2 and column 3, lines 36-37 of Morrow, disclosing fastening elements (36) for removably fastening the belt to the first back element (20).

As for claims 51-53, see the above discussion of claims 35-37.

As for claim 62, Morrow discloses the belt interlocking with the first back element so as to impart additionally stabilizing forces (at its point of connection) to the back element.

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11. Claims 38-40, 45-46, 54-56, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrow in view of Richards as applied to claims 37, 51 and 53 above, and further in view of Modglin (5,620,412). While Morrow discloses making the strip from a substantially rigid plastic that possesses some flexibility (col. 3, l. 13-14), Morrow is silent regarding whether the material is low density plastic or polyethylene. Morrow discloses in column 1, lines 17-21 that it is known to make lower back support from hard plastic and cites to U.S. Pat. No. 5,620,412 (Modglin) as an example. Modglin teaches in column 4, lines 9-16 that a hard plastic used with a lower back or pelvic support is made from a low density plastic or polyethylene in order to provide substantial rigidity while allow some flexation. Thus, Modglin provides a teaching that an appropriate substantially rigid plastic material for a lower back or pelvic support is low density plastic or polyethylene. Therefore, one having ordinary skill in the art would be motivated to use a low density plastic or polyethylene on the Morrow device in order to provide a substantially rigid lower back or pelvic support that allows for some flexation.

As for claims 39 and 54-55, see the above discussion.

As for claims 40 and 56, Morrow discloses the strip includes an outer substantially rigid material (col. 3, l. 12-14) and an inner relatively compressible material (40; col. 3, l. 43-49).

As for claims 45 and 61, see Figure 2 showing the belt integrally formed with the first back element. Note, The term "integral" does not require a one-piece, unitary

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structure. In re Kohno, 391 F.2d 959, 157 USPQ 275 (CCPA 1968); In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

As for claim 46, Morrow discloses the belt interlocking with the first back element so as to impart additionally stabilizing forces (at its point of connection) to the back element.

12. Claims 41-42 and 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrow in view of Richards as applied to claims 35 and 51 above, and further in view of Velazquez (3,771,513). Morrow discloses fastening elements for fastening the belt to the first back element. However, Morrow is silent regarding whether the fastening elements are for removably fastening the belt to the first back element. Velazquez teaches in Figure 1 that it is known in the back support art to fasten a pelvic belt to a back support element by using screws (col. 5, l. 41), which allow for the belt to be removably fasten to a back support. Thus, one having ordinary skill in the art would have known to removably fasten the back support of Morrow with screw fastening elements in order to connect the belt to the first back element.

13. Claims 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrow in view of Richards and Modglin as applied to claim 40 above, and further in view of Velazquez. Morrow discloses fastening elements for fastening the belt to the first back element. However, Morrow is silent regarding whether the fastening elements are for non-removably fastening the belt to the first back element. Velazquez also teaches securing another pelvic belt to the back support using a rivet (col. 6, l. 30-31) or a non-removable fastener of the belt to the back element. Thus, one having ordinary

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skill in the art would have known to use rivet fastening elements in order to fasten the belt to the first back element in a rigid or non-removable manner.

14. Claims 59-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrow in view of Richards as applied to claim 51 above, and further in view of Velazquez. See above teaching of Velazquez with respect to claims 43-44.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Garth (US 2001/0008955 A1), Springer (2,332,199), and LaBella (5,451,200) disclose the state of the art of body braces with belts and back elements. Hall (4,577,346) discloses an integral belt and back support, and Miller (5,074,288) discloses a body brace with padding and strap and buckle fasteners.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise M. Pothier whose telephone number is 703.308.0993. The examiner can normally be reached on Monday-Thursday and alternate Fridays. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be **directed to the receptionist** of Technology Center 3700, whose telephone number is (703) 308-1148.


Denise Pothier
Primary Examiner
February 25, 2003